

Notice of Allowability

Application No.

09/851,445

Examiner

Peter-Anthony Pappas

Applicant(s)

LEE ET AL.

Art Unit

2671

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 6/22/05 & 6/23/04.
2. ☒ The allowed claim(s) is/are 1-30.
3. ☒ The drawings filed on 08 May 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All, b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached.
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892).
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mike Scaturro on 6/22/05.

The application has been amended as follows:

- In claim 1 line 4 after the language "...input image I_k " insert the language in claim 31 lines 1-17 starting with ", wherein the act of segmenting..." and ending with "...identification of said at least one foreground object from the input image I_k ." The period after I_k should be replaced with a ";".
- In claim 11 line 4 after the language "...input image" insert the language in claim 32 lines 1-17 starting with ", wherein the operation of segmenting..." and ending with "...identification of said at least one foreground object from the input image I_k ." The period after I_k should be replaced with a ";".
- In claim 21 line 4 after the language "...input image" insert the language in claim 33 lines 1-17 starting with ", wherein the operation of segmenting..." and ending with "...identification of said at least one foreground object from the input image I_k ." The period after I_k should be replaced with a ";".
- Cancel claims 31-33.

2. Claims 1-30 are allowed.

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3. In regards to claims 1-30 the prior art of record fails to teach or suggest applying the inverse homography transformation H_k^{-1} to said mosaic M to derive at least one background image B_k ; comparing the at least one background image B_k with the at least one input image I_k to create at least one mask image M_k .

4. Geshwind et al. (U.S. Patent No. 4, 925, 294) teaches receiving at least one monocular video input image (Fig. 1, element 20); segmenting at least one foreground object (Fig. 1, element 23; column 3, lines 17-21) from the input image; applying a respective left and right transformation to each segmented foreground object and a respective left and right background transformation to the background (column 3, lines 25-32), for each of a plurality of output images (column 4, lines 65-66); combining the respective left transformation corresponding to each segmented foreground object with the respective left background transformation corresponding to the background to generate a left view for each of said plurality of output images (column 3, lines 25-32); combining the respective right transformation corresponding to each segmented foreground object with the respective right background transformation corresponding to the background to generate a right view for each of said plurality of output images (column 3, lines 25-32); deriving the plurality of output images from the results of the respective transformations (column 4, lines 65-66).

5. Wexler et al. teaches applying the inverse homography transformation H_k^{-1} to said mosaic M to derive at least one background image B_k ; comparing the at least one background image B_k with the at least one input image I_k to create at least one mask

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image M_k (p. 282, column 2). However, the date of publish of said reference is after the filing data of the Applicant's application.


Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter-Anthony Pappas whose telephone number is 571-272-7646. The examiner can normally be reached on M-F 9:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ulka Chauhan can be reached on 571-272-7782. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PAP


ULKA J. CHAUHAN
PRIMARY EXAMINER